Redesigning the Educational Computing Course to Incorporate the ISTE Standards

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Abstract

This paper describes the restructuring of the Educational Computing Course CUIN 6320 Technology in the Classroom, a graduate class at the University of Houston. The purpose of the restructuring was to model to the students the integration of the technology standards for instructional purposes so that they could learn what each standard meant to them as teachers and what it looked like in the classroom. There were many activities included throughout the semester that referenced the standards directly. There were also many opportunities for the students to reflect on the standards and how they applied to different instructional situations.

Proposal

In the next few years the state of Texas will be incorporating new certification tests that will require the prospective teachers to be competent in technology use and integration. Not only will the teachers need to know how to use the different technologies, they will have to be able to integrate those technologies into their classroom preparation, presentation and assessment. They will have to integrate in all areas of their lessons so that the students will be using the appropriate technologies as they learn, create, report and produce.

The semester began with a self-assessment based on the technology applications standards that have been adopted by the state of Texas. This gave the students an opportunity to reflect on their own skills and competencies while getting an overview of what the course would involve. Each class period involved some form of collaborative activity so the students could see how collaboration could lead toward more learning and involvement with the technologies and the standards. Individual activities gave students the chance to develop the technology skills that would be required for successful completion of the class. Collaborative extensions were assigned throughout the semester so that students would have to seek out resources in the community or at their schools. These collaborative extensions involved the use of technology in a practical way that could be applied even after the completion of the class.

A group project was begun in the middle of the semester that was based on the NETS-S learning activities. The students used collaboration in class and online to develop a learning activity that incorporated technology and met both technology standards and subject matter standards. The results of their efforts were compiled and added to the class website so that others could use them as a resource.

The final self-assessment and the final online portfolio tied the whole semester together and provided the students with a record of the development of their technology skills and competencies in technology integration. They left the course with a concrete product to share with others and use as a resource when they begin to teach.